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EXAMINER

FLEURANTIN, JEAN B

ART UNIT PAPER NUMBER

2172

DATE MAILED: 09/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/997,442

Applicant(s)

TARENSKEEN ET AL.

Examiner

JEAN B. FLEURANTIN

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 08 June 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 6/7/04.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Response to Amendment***

1. Claims 1- 31 remain pending for examination.

### ***Information Disclosure Statement***

2. The information disclosure statement (IDS) filed 6/07/04 complies with the provision of M.P.E.P. 609. It has been placed in the application file. The information referred to therein has been considered as to merits. (See attached form).

### ***Response to Applicant' Remarks***

3. Applicant's arguments filed 8 June 2004 have been fully considered but they are not persuasive for the following reasons:

Applicants stated that "Taylor does not event suggest two database systems, one a source database system and the other a target database system". It is submitted that Taylor reference discloses, a pipes interface process that supervises backup of each filled data stored, while the remaining output stream continues to be piped into another available data store. Taylor discloses the source database as item (14) described in Figure 2. Taylor, also discloses a data store management tasks and backup scheduling which handles by a self contained backup system for the purpose of freeing up additional resources in the host computer (col.3, lines 55-64). Taylor clearly indicated that when data store reaches capacity, so the intelligent process (30) signals the backup system (12), which the first database, to begin a backup of that data stores,

while remaining export data stream is piped into another available temporary data store (34), which in fact a target database, wherein the backup system keeps a logical backup and writes it to the backup tape with the archived data stream (col.4, lines 55-67).

Applicant should duly note that the output data stream from a database export command of a DBMS is piped into an intelligent pipe reading process. Based on the analysis stated above, Taylor discloses a second database which in fact a DBMS. Therefore, the aforementioned argument(s) is/are moot.

In response to applicant's arguments, the recitation "migrating data from a first source table in a first database system to a second database system" has not been given patentable weight because the recitation occurs in the preamble. However, there is no mentioned of "a second database system that receives data migrated from a first database system" set forth in the body of claims 22 and 31. Applicant (s) is/are reminded that the examiner is entitled to the broadest reasonable interpretation of the claims. The Applicants always have the opportunity to amend the claims during prosecution and broad interpretation by the examiner reduces the possibility that the claim, once issued, will be interpreted more broadly than is justified. In re Prater 162 USPQ 541, 550-51 (CCPA 1969). Applicant(s) is/are also reminded that a preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone.

See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951). Hence the 35 U.S.C. 102 is hereby sustained.

For the above reasons, it is believed that the last Office Action was proper.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-7, 9-19, 26, 27, 29 and 30, as understood, are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,611,074 issued to Taylor ("hereinafter Taylor '074").

As per claim 1, Taylor '074 discloses a target database system comprising:

"a storage subsystem (figure 2) to store a plurality of temporary tables", (figure 1, elements 34, 36);

"an access management subsystem (figure 2, elements 22 and 30) adapted to receive, in parallel" (see figure 2), "groups of data from a source database system (storage 14 of figure 2) for storage in corresponding temporary tables", (figure 2, elements 34, 36);

"the access management subsystem (figure 2, elements 22 and 30) adapted to further insert data from the temporary tables (figure 2, elements 34, 36) "into the target table", (figure 2, element 18.

Applicant is also referred to column 4, line 49 to column 5, line 10.

As per claim 2, Taylor `074 discloses, "wherein the access management system comprises plural access managers adapted to manage access of respective portions of the storage subsystem" as data availability has also been increased through the use of arrays of mirrored databases, either single or multi-threaded, for multiple simultaneous access capabilities, (see col. 1, lines 31-33).

As per claim 3, Taylor `074 discloses, "wherein the temporary tables are defined according to definitions for a source table in the source system", (see figure 2, elements 34, 36).

As per claim 4, Taylor `074 discloses, "wherein the plural access managers are adapted to insert data from the temporary tables in parallel to the target table", (see figure 2, elements 34, 36 and 18).

As per claim 5, Taylor `074 discloses, "the storage subsystem to store the definitions for the source table copied from the source system" as a set of temporary data stores 34 built from raw storage resources 36, when a data store: reaches capacity

the intelligent process 30 signals the backup system 12 to begin a backup of that data store, (see col. 4, lines 54-57).

As per claim 6, Taylor '074 discloses, "wherein the plural access managers comprises access module processors, the storage subsystem divided into plural storage modules managed by respective access module processors", (see figure 2, elements 30 and 39).

As per claim 7, Taylor '074 discloses, "wherein the target table is distributed across the plural storage modules", (see figure 2, elements 18, 39 and 30).

As per claim 9, Taylor '074 discloses, "wherein the access management subsystem has a configuration different from a configuration of an access management system in the source system" as database export command of a DBMS 22 is piped into an intelligent pipe reading process 30 and distributed over a set of temporary data stores 34 built from raw storage resources 36, (see col. 4, lines 52-55).

As per claim 10, Taylor '074 discloses a method of migrating data (see figure 2) to:

"archiving data from a source table; in a source database system" as data storage system 14 of figure 2 being stored or archived;

"transferring groups of the archived data" (figure 2, element 38) in parallel (figure 2) to corresponding temporary tables (figure 2, elements 34, 36) in a target database system (figure 2, element 18);

"inserting data from the temporary tables" (figure 2, elements 34, 36) "into a target table in the target database system" (figure 2, element 18).

Applicant is also referred to column 4, line 49 to column 5, line 10.

As per claim 11, Taylor `074 discloses, "wherein archiving the data comprises archiving the data using a plurality of concurrently active archive modules" command executed by DBMS (22) in backup system 12, backup control process 39 works concurrently with DBMS (22), control 30 for determining when the data stream in data stores 34 is empty or full before beginning transferring of data into catalog 37 and tape device 18.

As per claim 12, Taylor `074 discloses, "wherein transferring the groups of data comprises restoring the groups of data, in parallel, using a plurality of restore modules" as an operator executes the appropriate command to restore a database. The archive utility as figure 2, elements (22, 30, 34 and 36).

As per claim 13, Taylor `074 discloses the method, "further comprising communicating the groups of data between respective pairs of archive modules and restore modules across a transfer medium" as an operator executes the appropriate



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command to restore a database. The archive utility as figure 2, elements (22, 30., 34 and 36).

As per claim 14, Taylor `074 discloses, "wherein communication across the transfer medium comprises communicating across a pipe defined by an operating system in one of the source database system and the target database system", as data stream 38 from a database export command of a DBMS 22 is piped into an intelligent pipe reading process 30 and distributed over a set of temporary data stores 34 built from raw storage resources 36, (see Col. 4, lines 52-55; figure 2, elements 38, 30, 39 and 18).

As per claim 15, Taylor `074 discloses, "wherein communication across the transfer medium comprises communicating through an intermediate storage system" as data stream 38 from a database export command of a DBMS 22 is piped into an intelligent pipe reading process 30 and distributed over a set of temporary data stores 34 built from raw storage resources 36, (see Col. 4, lines 52-55).

As per claim 16, Taylor `074 discloses the method, "further comprising storing the source table across plural access manager (see figure 2, elements 34. 36), each access manager managing access to respectively portions of the source table" as database export command of a DBMS 22 is piped into an intelligent pipe reading process 30 and

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distributed over a set of temporary data stores 34 built from raw storage resources 36, (see col. 4, lines 52-55).

As per claim 17, Taylor `074 discloses, "wherein transferring groups of the data comprises transferring clusters of the data, each cluster of data comprising data associated with a respective set of plural access managers" as data availability has also been increased through the use of arrays of mirrored databases, either single or multi-threaded, for multiple simultaneous access capabilities, (see col. 1, lines 31-33).

As per claim 18, Taylor `074 discloses the method, "further comprising copying database definitions from the source database system to the target database system", (see figure 2, elements 34, 36).

As per claim 19, Taylor `074 discloses the method, "further comprising creating temporary tables in the target database using the copied database definitions", (see figure 2, elements 34, 36).

As per claim 26, Taylor `074 discloses an article at least one storage medium containing instructions that when executed cause a target database (see figure 2) to:

"receive one or more queries to set up temporary tables in the target database system" as data storage system 14 of figure 2 being received data from the DBMS (22) of Host (10). It should be noted that data are comprised of queries.

"receive groups of the data from a source table in a source database into the temporary tables" (figure 2, elements 34, 36); .

"inserting data from the temporary tables" (figure 2, elements 34, 36) "into a target table in the target database system" (figure 2, element 18).

Applicant is also referred to column 4, line 49 to column 5, line 10.

As per claim 27, Taylor `074 discloses, "wherein receiving the instructions when executed cause the target database system to create the temporary tables using definitions for the source table", (see figure 2, elements 34, 36).

As per claim 29, Taylor `074 discloses, "wherein receiving the instructions when executed cause the target database system to receive the groups of data comprising clusters of data" as data availability has also been increased through the use of arrays of mirrored databases, either single or multi-threaded, for multiple simultaneous access capabilities, (see col. 1, lines 31-33).

As per claim 30, "wherein each cluster comprises data of plural access module processors in the source database system", (figure 2, elements 22 and 30).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 20-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,651,074 issued to Taylor ("hereinafter Taylor `074").

As per claim 20, Taylor `074 illustrates only a single source of table or database. The Examiner notes that Taylor has done so for only illustration purposes. It would have been obvious to one of ordinary skill in the art to note that a storage system may include one or more databases or data tables or second source tables. Moreover, it would have been obvious to one of ordinary skill in the art to note that the storage system of Taylor may be partitioned into a plurality of second sources. Thus, the step of archiving data from a second source table would have been obvious to one of ordinary skill in the art at the time the invention was made in order provide storage and migration of very large data or database system, thus making the system versatile. The step of transferring data from a source table to a set of temporary table in a target database system has been discussed above in light of claim 10 above. Thus, transferring groups of the archived data from the second source table in parallel to corresponding second set of temporary tables in the target database system would have been obvious to one of ordinary skill in the art at the time of the invention since there would exist a plurality of

secondary tables as the step of transferring would have likewise been executed or performed as noted above.

As per claim 21, Taylor `074 discloses the method, "further comprising inserting data from the second set of temporary tables" (figure 2, elements 34, 36) "into a second target tale in the target database system" (figure 2, element 18).

Applicant is also referred to column 4, line 49 to column 5, line 10.

As per claim 22, Taylor `074 discloses "a method of migrating data form a first source table in a first database system to a second database system" (see figure 2) and column 4, line 49 to column 5, line 10, comprising:

"receiving groups of data (figure 2, element 38) from the source table (figure 2, element 14) from an intermediate medium into corresponding temporary tables (figure 2, elements 34, 36) in the second database system" (figure 2, element 18),

"defining the temporary tables according to definitions of the sources table" is not explicitly stated in Taylor. However, the temporary tables retaining the same names and format as the tables of the source tables is interpreted as the step of "defining the temporary tables according to definitions of the source table. It would have been obvious to one of ordinary skill in the art at the time the invention was made to define the temporary tables according to definitions of the source table in order to provide consistency between the source tables and the target table thereby preventing alteration of the tables.

"inserting rows of the temporary tables into a target table in the second database system" (see figure 2, element 18). It should be noted that a table comprises rows and columns.

Applicant is also referred to column 4, line 49 to column 5, lines 10.

As per claim 23, Taylor '074 discloses, "wherein receiving the data comprises data from the group in parallel into the corresponding temporary tables", (see figure 2, elements 34, 36 and 18).

As per claim 24, Taylor '074 discloses, "wherein receiving the data from the intermediate medium comprises receiving the data over a data network", (see col. 2, lines 2-4).

As per claim 25, Taylor '074 discloses, "wherein receiving the data from the intermediate medium (figure 2, elements 12) comprises receiving the data from an intermediate storage (figure 2, element 14).

As per claim 31, Taylor '074 discloses "an article comprising at least one storage medium containing instructions for migrating data from first source table in a first database system to a second database system, the instructions when executed causing the second database system" (see figure 2), to:

"receiving, in parallel (figure 2) groups of data from the source table (figure 2, element 14) from an intermediate medium into corresponding temporary tables (figure 2, elements 34, 36) in the second database system (figure 2, element 18)" ,

"defining the temporary tables according to definitions of the sources table" is not explicitly stated in Taylor. However, the temporary tables retaining the same names and format as the tables of the source tables is interpreted as the step of "defining the temporary tables according to definitions of the source table. It would have been obvious to one of ordinary skill in the art at the time the invention was made to define the temporary tables according to definitions of the source table in order to provide consistency between the source tables and the target table thereby preventing alteration of the tables.

"inserting rows of the temporary tables, in parallel, into a target table in the second database system" (see figure 2, element 18). It should be noted that a table comprises rows and columns.

Applicant is also referred to column 4, line 49 to column 5, lines 10).

6. Claims 8 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,651,074 issued to Taylor ("hereinafter Taylor `074") in view of Nathan Gurewich et al. - 1995 ("hereinafter Gurewich").

As per claim 8, Taylor `074 does not explicitly specify the type of database used in their system such as the temporary tables are relational tables. However, a relational database is well known in the art. Such as a database provides a link between different

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tables or databases note the pages 144-148 of Nathan Gurewich. Having a relational database in the system of Taylor would have been obvious to one of ordinary skill in the art in order to provide the capability to access and backup many types of databases thus making the system versatile and attractive to many types of users having a wide range of applications.

As per claim 28, Taylor '074 does not explicitly specify the type of database used in their system such as a database having one or more of the characteristics of columns, data types of columns, primary key and one or more indexes or database system having the characteristics of columns, data types of columns, primary key and one or more indexes in the system of Taylor would have been obvious to one of ordinary skill in the art in order to provide the capability to access and backup many types of databases thus making the system versatile and attractive to many types of users having a wide range of applications.



***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

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### CONTACT INFORMATION


7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JEAN B. FLEURANTIN whose telephone number is 703 - 308-6718. The examiner can normally be reached on 7:05 to 4:35.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JOHN E BREENE can be reached on 703 - 305-9790. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Jean Bolte Fleurantin

September 14, 2004

  
SHAHID ALAM  
PRIMARY EXAMINER